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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/786,196 | 03/02/2001 | Judith Blank nee Keller | P 277968 | 5237 |

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| EXAMINER | |
|---|---|
| D AGOSTA, STEPHEN M | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2683 | 8 |

DATE MAILED: 04/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/786,196 | BLANK NEE KELLER ET AL. | |
| | Examiner | Art Unit | |
| | Stephen M. D'Agosta | 2683 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) 1-12 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-8,11 and 12 is/are rejected.

7)☒ Claim(s) 10 and ~~11~~ is/are objected to. 9-10

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 02 March 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Priority*

Acknowledgment is made that application is a 371 of a PCT case.

### *Response to Preliminary Amendment*

The preliminary amendment has been received and incorporated into the claims that were examined below.

### *Information Disclosure Statement*

The information disclosure statement (IDS) submitted on 5-24-01 is in compliance and accordingly, the information disclosure statement is being considered by the examiner.

### *Drawings*

The drawings were received on 3-2-01 and have been reviewed by the draftsperson and examiner.

### *Specification*

1. The abstract of the disclosure is objected to because it should be only ONE paragraph. The "(Figure 4)" marking should also be removed. Correction is required. See MPEP § 608.01(b).

2. The first page of the specification does not make reference to the PCT upon which this case is based.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

**Claims 1, 5-6, 8 and 11-12** rejected under 35 U.S.C. 103(a) as being unpatentable over Ul Azam et al. US 5,566,224 and further in view of Buckley et al. US 6,106,121 (hereafter Ul Azam and Buckley).

As per **claim 1**, Ul Azam teaches a flat display for an electrically autonomous device on which information is displayable, and which flat display is electrically controllable to become reflecting (abstract, figures 1-3 and C1, L39-40, C3, L21-45 and C7, L5-15), wherein

**But is silent on**

The flat display comprises a background display later which is changeable from a reflecting to a colored, non-reflecting state with electrical control signal, the background display layer comprising a display layer which is controllable from a transparent into a colored state with electrical control signals, and

A reflecting layer, and

The flat display comprises a foreground display layer disposed over the background display layer which foreground layer is changeable from a transparent state into a non-transparent state with other electrical control signals.

The examiner notes that several embodiments exist with regard to the manner in which the display is designed and operates. Ul Azam teaches a mirrored surface that continues to reflect as a mirror even when data is displayed (C4, L47-57). Further to this point is **Buckley** teaches a rear view mirror with transparent glass covering a matrix

display (eg. LCD) that is controlled to be either translucent or transparent (abstract, figures 1-4, C2, L7-45).

NOTE: The examiner has included, but does not cite, other references which also disclose similar embodiments:

- **Tsutomu** teaches a mirror structure comprising a mirror surface and LCD that can be selectively controlled/switched between a transparent state or an opaque state (abstract).
- **Suppelsa** teaches an LCD with a reflective-type LCD in front of an electrochromic panel which is controlled to allow the LCD to be either transparent or translucent.

Hence, the combination of the above teachings read on the limitations that Ul Azam is silent on.

It would have been obvious to one skilled in the art at the time of the invention to modify Ul Azam, such that background display later which is changeable from a reflecting to non-reflecting state, a reflecting layer, and a foreground display layer disposed over the background display layer which is changeable from a transparent state into a non-transparent state, to provide means for a multiple-layer LCD design to provide mirror/display functions for a mobile device.

As per **claims 5-6**, Ul Azam in view of Buckley in view of Buckley teaches claim 1 and use of LCD display (C3, L31) **but is silent on** foreground and background display layers.

Buckley teaches multiple layers for display (abstract and figures 2-4)

It would have been obvious to one skilled in the art at the time of the invention to modify Ul Azam in view of Buckley, such that foreground/background display layers are used, to provide a display based on multiple LCD layers that can operate as a mirror and display.

As per **claim 8**, Ul Azam in view of Buckley teaches claim 1 wherein said flat display is for a mobile phone (figure 2 or figure 3).

As per **claim 11**, Ul Azam in view of Buckley teaches claim 8 wherein it comprises operating elements to control the reflecting or non-reflecting state of the display (figure 1 shows a controller #104 connected to the display, #108).

As per **claim 12**, Ul Azam in view of Buckley teaches claim 8 wherein the display is reflecting when the mobile phone is switched off (Ul Azam in view of Buckley teaches displaying information only when the phone is in use, C4, L47-57, hence no information will be displayed when the phone is off).

**Claims 2-3 and 7** rejected under 35 U.S.C. 103(a) as being unpatentable over Ul Azam in view of Buckley as applied to claim 1 and further in view of Green GB2295241 (hereafter Green).

As per **claim 2**, Ul Azam in view of Buckley in view of Buckley teaches claim 1 **but is silent on** wherein it is electrically controllable so that only a portion of the display becomes reflecting.

The examiner interprets Ul Azam as being both a "mirror that displays" and a "display that can act as a mirror", hence a small section of the mirror can display information (C4, L47-57). One skilled in the art can adapt any portion of the mirror as required to provide display capability.

Buckley teaches a mirror that can display data (abstract, figures 1-4 and C2, L7-45) and/or Buckley teaches a display that can reflect.

Green teaches a display device that can have its reflectivity changed by applying an appropriate potential/control signal (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Ul Azam in view of Buckley, such that only a portion becomes reflecting, to provide means for the device to simultaneously provide display and mirror functions.

As per **claim 3**, Ul Azam in view of Buckley and Green teaches claim 2 **but is silent on** wherein the text information and/or picture information is displayable on the remaining, non-reflecting portion of the display.

Ul Azam appears to teach the converse of this claim, eg. a small section of the mirror can display information (C4, L47-57). One skilled in the art can adapt as much of the mirror as required to provide display capability.

Buckley teaches a mirror that can display data (abstract, figures 1-4 and C2, L7-45).

Green teaches a display device that can have it's reflectivity changed by applying an appropriate potential/control signal (abstract).

It would have been obvious to one skilled in the art at the time of the invention to modify Ul Azam in view of Buckley and Green, such that only a portion becomes reflecting, to provide means for the device to simultaneously provide display and mirror functions.

As per **claim 7**, Ul Azam in view of Buckley teaches claim 1 **but is silent on** wherein said reflecting layer comprises a film made of aluminum.

Green teaches an electrochromic display that uses $SiO_2/AL_2O_3$, which contains Aluminum (eg. AL).

It would have been obvious to one skilled in the art at the time of the invention to modify Ul Azam in view of Buckley, such that Aluminum is used, to provide a reflective metal as a background for reflecting when operating the system as a mirror.

**Claim 4** rejected under 35 U.S.C. 103(a) as being unpatentable over Ul Azam in view of Buckley as applied to claim 1 and further in view of Ogishima US 5,818,814 (hereafter Ogishima).

As per **claim 4**, Ul Azam in view of Buckley teaches claim 1 **but is silent on** wherein the reflecting layer is concave or convex.

Ogishima teaches a liquid crystal display device includes: a first substrate and a second substrate, each substrate having an electrode formed thereon; a liquid crystal layer interposed between the first substrate and the second substrate; and a convex pattern formed on a surface of the second substrate so as to face the liquid crystal layer, the convex pattern having an alignment function for controlling an orientation of

liquid crystal molecules in the liquid crystal layer so as to conduct a display in an electrically controlled birefringence mode (abstract, figures 1-4a and C2, L25-67).

It would have been obvious to one skilled in the art at the time of the invention to modify Ul Azam in view of Buckley, such that the relecting layer is concave/convex, to provide means to enhance the viewing capability of the display.

### *Allowable Subject Matter*

**Claims 9 and 10** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Claim 9:** Prior art does not teaches a phone contains an ID Card, a processor is integrated into the ID Card and the reflecting state of the display is controllable with this processor.

**Claim 10:** Prior art does not teach wherein the reflecting state of the display is remotely controllable with data messages.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

1. Bien US 6,311,077
2. Dykstra US 6,553,123
3. Ul Azam in view of Buckley et al. US 5,878,353
4. Misubishi Denki JP-0136783

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist on 703-306-0377.

SMD

